# **EIC1700**

# Search Results Feedback Form (Optional)



The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact the EIC searcher who conducted the search or contact:

Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62

> I am an examiner in Workgroup:	ample: [1712]	
	ample: 1713	
> Relevant prior art found, search results used as follows	s:	
102 rejection		
103 rejection		
Cited as being of interest.	· · ·	
Helped examiner better understand the inver	ntion.	
Helped examiner better understand the state	of the art in their technology.	
Types of relevant prior art found:	• • • • • • • • • • • • • • • • • • •	
Foreign Patent(s)		
Non-Patent Literature (journal articles, conference proceedings, ne	ew product announcements etc.)	
> Relevant prior art not found:		,
Results verified the lack of relevant prior art	(helped determine patentability).	
Search results were not useful in determining		vention.
Other Comments:		

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=> FILE REG
FILE 'REGISTRY' ENTERED AT 10:08:56 ON 04 FEB 2003
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STRUCTURE FILE UPDATES: 2 FEB 2003 HIGHEST RN 484639-64-7 DICTIONARY FILE UPDATES: 2 FEB 2003 HIGHEST RN 484639-64-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting  ${\tt SmartSELECT}$  searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 10:09:01 ON 04 FEB 2003

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FILE COVERS 1907 - 4 Feb 2003 VOL 138 ISS 6 FILE LAST UPDATED: 3 Feb 2003 (20030203/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE L11 STR

```
9
       14
                                                   Ak @13
               OH
                                   Ak-0-Ak
        G3
                                   @10 11 @12
            C - C - C - O - Ak
G2~G1~N-
                                                      30
                               25
    19
                                                       OH
                               OH
    OH
                                               N~-CH2-CH~CH~O-^Ak
                        NH ~ CH2 · CH ~ CH ~ O ~ Ak
 CH2-CH\sqrt CH\sqrt O-\sqrt Ak
                                                  28 29 31 32 33
                       @27 21 22 23 24 26
@15 16 17 18 20
                                                     36
                                                     OH
                                                  CH2 CH CH O Ak
                                                     35 37 38 39
                                                            structures from
```

VAR G1=13/CB/10-1 12-3 VAR G2=NH2/27/40 VAR G3=15/H NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED ECOUNT IS M2 C AT 13

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 40

```
STEREO ATTRIBUTES: NONE
           253 SEA FILE=REGISTRY SSS FUL L11
T.13
            130 SEA FILE=HCAPLUS ABB=ON L13
             0 SEA FILE=HCAPLUS ABB=ON L14 AND FOAM? (4A) CONTROL?
L14
              3 SEA FILE=HCAPLUS ABB=ON L14 AND FOAM?
L15
             29 SEA FILE=HCAPLUS ABB=ON LI4 AND (?OXIR? OR ?GLYCIDYL?) (4A) ETHE
L16
L19
              O SEA FILE=HCAPLUS ABB=ON L14 AND (?OXIR? OR ?GLYCIDYL?) (4A) ETHE
             __R?_
L20
              O SEA FILE=HCAPLUS ABB=ON L14 AND (?OXIR? OR ?GLYCIDYL?)(4A)CAP?
                                                      ung identifier &
L21
                                          1.30.1/RID
         168257 SEA FILE=REGISTRY ABB=ON
L23
             21 SEA FILE=REGISTRY ABB=ON L23 AND L13
              5 SEA FILE=HCAPLUS ABB=ON L19 AND DETERGENT?/SC,SX
L24
L27
              8 SEA FILE=HCAPLUS ABB=ON L24
              O SEA FILE=HCAPLUS ABB=ON L28 AND (FOAM? OR DETERGENT?/SC,SX,AB,
L28
L29
              7 SEA FILE=HCAPLUS ABB=ON L15 OR L16 OR L20 OR L21 OR L27 OR
L30
                L29
              2 SEA FILE=HCAPLUS ABB=ON L19 AND DETERGENT?
 L31
              7 SEA FILE=HCAPLUS ABB=ON
                                          L30 OR L31
                                         L19 AND (COMPOSITION? OR COMPNS?)
 L32
              11 SEA FILE=HCAPLUS ABB=ON
                                         L14 AND (SURFACTANT? OR SURFACE
 L34
              18 SEA FILE=HCAPLUS ABB=ON
 L35
                ACTIV?)
               9 SEA FILE=HCAPLUS ABB=ON L35 NOT COSMETIC?/SC
              18 SEA FILE=HCAPLUS ABB=ON L32 OR L34 OR L36
 L36
 L37
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L

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=> D L37 ALL 1-18 HITSTR
L37 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2003 ACS
     2001:269448 HCAPLUS
NΑ
     Laundry detergent composition with improved softness
DN
     of textile and prevention of discoloration
     Fujii, Yukiko; Ishikawa, Akira; Uno, Mitsuru
IN
     Kao Corp., Japan
     Jpn. Kokai Tokkyo Koho, 6 pp.
PA
SO
     CODEN: JKXXAF
     Patent
DT
      Japanese
LA
     ICM C11D003-30
 TC
      ICS C11D003-37
      46-5 (Surface Active Agents and Detergents)
 CC
                                            APPLICATION NO.
                                                              DATE
 FAN.CNT 1
                       KIND DATE
      PATENT NO.
                                             -----
                                                              19991006
                                             JP 1999-285918
                             20010417
                        A2
      JP 2001107083
 PΙ
                             19991006
 PRAI JP 1999-285918
      The compn. comprises R1(OCH2CHCH2NHR2)nOH [R1 = H, C4-20
      hydrocarbyl; R2 = H, C1-5 alkyl, hydroxyalkyl, (CH2CH2NH)mH, m = 1-10; n = 1-10
 OS
 AB
      1-5] and a surfactant. Thus, a compn. was made from
      mainly surfactants and 1,5-dihydroxy-3-aza-7-oxapentadecane,
      prepd. by the reaction of 231 \bar{g} octyl alc. and 170 \bar{g} epichlorohydrin and
      then with 66.0 g ethanolamine.
       laundry detergent aza oxapentadecane; discoloration prevention
  ST
       softness laundry detergent
          (laundry; laundry detergent compn. with improved
       Detergents
  IT
          softness of textile and prevention of discoloration)
       3385-66-8P, Octyl glycidyl ether
       RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
  TΤ
        (Reactant or reagent)
           (laundry detergent compn. with improved softness of
          textile and prevention of discoloration)
        RL: IMF (Industrial manufacture); TEM (Technical or engineered material
   IT
        use); PREP (Preparation); USES (Uses)
           (laundry detergent compn. with improved softness of
           textile and prevention of discoloration)
                                               111-27-3, Hexyl alcohol, reactions
        106-89-8, Epichlorohydrin, reactions
   IT
        111-87-5, Octyl alcohol, reactions
        RL: RCT (Reactant); RACT (Reactant or reagent)
            (laundry detergent compn. with improved softness of
           textile and prevention of discoloration)
        RL: IMF (Industrial manufacture); TEM (Technical or engineered material
   IT
        use); PREP (Preparation); USES (Uses)
            (laundry detergent compn. with improved softness of
            textile and prevention of discoloration)
         2-Propanol, 1-[(2-aminoethyl)amino]-3-(hexadecyloxy)- (9CI) (CA INDEX
         334897-51-7 HCAPLUS
    RN
    CN
         NAME)
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Page 4
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METZMAIER 10/061898 OH  $Me^{-(CH_2)}15^{-O-CH_2-CH-CH_2-NH-CH_2-CH_2-NH_2}$ L37 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2003 ACS 2000:376812 HCAPLUS ΑN Cosmetics containing N-long chain acyl-amino acid esters DN Ishii, Hiroji; Yumioka, Ryosuke; Koyama, Kyoko тT IN Ajinomoto Co., Inc., Japan Jpn. Kokai Tokkyo Koho, 34 pp. PΑ SO CODEN: JKXXAF DT Patent Japanese LAICS A61K007-02; A61K007-06; A61K007-075; A61K007-08; A61K007-42; TC A61K007-48; A61K007-50; C11D001-10 62-4 (Essential Oils and Cosmetics) CC APPLICATION NO. DATE FAN.CNT 1 KIND DATE PATENT NO. 19990526 JP 1999-146974 20000606 A2 JP 2000154112 PΙ 19980601 PRAI JP 1998-150945 Α The cosmetics, which have no sticky texture, show good hair-conditioning OS effect, and give smoothness to skin, contain (a)  $N-[C6-22 \ linear \ or \ ]$ branched (un)satd. acyl]-neutral amino acid C1-10 linear or branched AΒ (un)satd. hydrocarbyl esters and/or (b) N-[C6-22 linear or branched (un) satd. acyl]-acidic amino acid C1-10 linear or branched (un) satd. hydrocarbyl diesters and (c) surfactants as active ingredients. A cleansing foam contg. N-lauroylsarcosine iso-Pr ester 2, N-lauroylglutamic acid Na salt 20, 1,3-butylene glycol 50%, antiseptic, and H20 balance had no stickiness during and after the use. long chain acyl neutral amino acid ester cosmetic; acidic amino acid long chain acyl diester hair conditioner; isopropyl lauroylsarcosinate ST surfactant cleansing cosmetic; glutamate diester cocoyl surfactant cosmetic; cocoylglutamate diester surfactant cosmetic RL: BUU (Biological use, unclassified); BIOL (Biological study); USES \_ \_ \_ Amino acids, biological studies IT (N-acyl derivs., esters; cosmetics contg. N-long-chain acyl-neutral (Uses) amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants) Amino acids, biological studies ΙT

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(acidic, N-acyl derivs., diesters; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Cosmetics IT

(cleansing; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

IT

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(coco alkyldimethyl; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and

#### METZMAIER 10/061898 Page 5

surfactants)

Amides, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES IT

(coco, N,N-bis(hydroxyethyl); cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Fatty acids, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES IT

(coco, potassium salts; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Fatty acids, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES IT (Uses)

(coco, reaction products, with arginine or acylglycine potassium; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Hair preparations (conditioners; cosmetics contg. N-long-chain acyl-neutral amino acid IT esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

(conditioning; cosmetics contg. N-long-chain acyl-neutral amino acid Shampoos IT esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Sunscreens TΤ

Surfactants

(cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES IT (Uses)

(cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Cosmetics IT

TT

Hair preparations

(creams; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Hair preparations (dyes; cosmetics contg. N-long-chain acyl-neutral amino acid esters IT and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

(emulsions; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Polyoxyalkylenes, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES ΙT (Uses)

(ethers with phytosterol or lanolin alc.; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES Lanolin (ethoxylated, TW 10; cosmetics contg. N-long-chain acyl-neutral amino (Uses) acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Sterols TT

#### Page 6 METZMAIER 10/061898

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(ethoxylated; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Cosmetics IT

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(eye liners; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Cosmetics IT

(eye shadows; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Cosmetics TT

(foams, cleansing; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Cosmetics IT

(foundations; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Polyoxyalkylenes, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES TT

(hydrogenated castor oil derivs.; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

IT

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hydrogenated, ethoxylated; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Collagens, biological studies ΙT

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hydrolyzates, N-coco acyl, sodium salts; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

IT - Alcohols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological-study); USES (Uses)

(lanolin, ethoxylated; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Cosmetics TΨ

(lipsticks; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Cosmetics TΤ

(lotions, sunscreen; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

Cosmetics IT

(makeup removers; cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

IT

(mousses; cosmetics contg. N-long-chain acyl-neutral amino acid esters Hair preparations and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

```
(powders; cosmetics contg. N-long-chain acyl-neutral amino acid esters
    Cosmetics
IT
        and/or N-long-chain acyl-acidic amino acid diesters and surfactants)
        (sprays; cosmetics contg. N-long-chain acyl-neutral amino acid esters
     Hair preparations
IT
        and/or N-long-chain acyl-acidic amino acid diesters and surfactants)
     191549-80-1, Amisoft CT 12S
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
ΙT
        (N-acyl derivs., esters; cosmetics contg. N-long-chain acyl-neutral
     (Uses)
        amino acid esters and/or N-long-chain acyl-acidic amino acid diesters
     56-41-7D, Alanine, N-cocoyl derivs., iso-Pr ester 56-86-0D, Glutamic acid, N-cocoyl or N-hydrogenated tallow fatty acyl derivs., diisopropyl
ΙT
              98-79-3D, Pyroglutamic acid, ester with polyoxyethylene
     hydrogenated castor oil monoisostearate 107-64-2,
                                         107-97-1D, Sarcosine, N-cocoyl
     Distearyldimethylammonium chloride
      derivs., iso-Pr ester 111-60-4, Ethylene glycol monostearate
                                                        151-21-3, Sodium lauryl
                           143-18-0, Potassium oleate
      sulfate, biological studies 544-31-0, Palmitic acid monoethanolamide
      593-29-3, Potassium stearate 627-83-8, Ethylene glycol distearate
                                                  1323-39-3, Propylene glycol
      1120-02-1, Stearyltrimethylammonium bromide
                     1338-41-6, Sorbitan monostearate 2624-31-9, Potassium
                                                           9004-82-4, Emal 20C
      monostearate
                                               7651-02-7
                  4292-10-8, Softazoline LPB
                                               9004-98-2, Polyoxyethylene oleyl
      palmitate
      9004-95-9, Polyoxyethylene cetyl ether
              9004-99-3, Polyethylene glycol monostearate 9005-65-6,
                                           9005-71-4, Polyoxyethylene sorbitan
      Polyoxyethylenesorbitan monooleate
                                                                   9046-01-9,
                   9016-45-9, Polyoxyethylene nonylphenyl ether
                          9087-53-0, Polyoxyethylene-polyoxypropylene cetyl
      tristearate
             10124-65-9, Potassium laurate 12694-22-3, Diglyceryl
      Phosphanol RS 610
      monostearate 13429-27-1, Potassium myristate 16889-14-8
                                                                    17301-53-0,
                                      25322-68-3D, ethers with phytosterol or
                     25322-68-3D, hydrogenated castor oil derivs. 26636-40-8,
                          21539-58-2
      Neoscoap CN 30SF
       Polyoxyethylene behenyl ether 26838-05-1, Disodium lauryl sulfosuccinate
       lanolin alc.
                                          30399-84-9D, Isostearic acid, ester
       27214-38-6, Glyceryl monomyristate
       with polyoxyethylene hydrogenated castor oil monopyroglutamate
       37230-97-0, Catinal HTB 70 41594-90-5 42926-22-7, Sodium
                                                           51033-38-6,
                            50940-13-1D, N-cocoyl derivs.
       Hexaglyceryl monolaurate 51852-65-4, Polyoxyethylene glyceryl
       monostearate 52315-75-0, Amihope LL 53026-27-0, Polyoxyethylene
       sorbitol tristearate 56827-95-3, Tripalmityl phosphate 58450-52-5,
                                                      66398-15-0 67450-05-9,
       Kohacool L 300 61792-31-2, Softazoline LAO
                                                                   102051-00-3,
       Polypropylene glycol-succinic acid copolymer 67645-67-4
                                              1\overline{07615}-45-2, Hexaglyceryl
       Decaglyceryl trioleate 102847-97-2
                                                                   130632-27-8,
                                                     126449-40-9
                      122636-91-3, Softazoline CPB
                                                          158453-49-7, Cosmol
       monomyristate
                                       149779-14-6, CAE
       Potassium 2-heptylundecanoate
                                                       194797-15-4
                             194797-05-2 194797-08-5
                                                                230309-35-0,
               194797-04-1
                                                 230309-34-9
                     230309-28-1 230309-33-8
                                            230309-38-3 230309-39-4
        220505-72-6
        N-Lauroylalanine tert-butyl ester
                                                              240492-41-5,
                                                 230972-56-2
        230309-41-8 230309-43-0 230972-53-9
                                                                 273200-36-5
                                                     273200-34-3
                                       273200-32-1
                                                     273214-35-0, Amilite GCK 12
                         259088-27-2
        Amilite ACT 12
                      273214-33-8, Aminosoap AR 12
                                       273214-69-0, Softazoline NS-A
        273200-37-6
        273214-65-6, Softazoline CHR
        273214-70-3, Amisoft C 273215-12-6, Neoscoap SCN 35
        RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
           (cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or
           N-long-chain acyl-acidic amino acid diesters and surfactants)
         RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        194797-08-5
```

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(Uses)

(cosmetics contg. N-long-chain acyl-neutral amino acid esters and/or N-long-chain acyl-acidic amino acid diesters and surfactants)

194797-08-5 HCAPLUS

L-Lysine, N6-[3-(dodecyloxy)-2-hydroxypropyl]-, hydrochloride (9CI) RNCN INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{NH2} & \text{OH} \\ & \text{HO}_2\text{C} & \text{S} & \text{(CH}_2) & \text{4} \end{array} \qquad \begin{array}{c} \text{OH} \\ & \text{N} & \text{O} \\ & \text{(CH}_2) & \text{11} \end{array}$$

#### ●x HCl

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L37 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2003 ACS
    1999:312668 HCAPLUS
AN
     Hair cosmetics containing basic amino acid derivatives and/or alkyl
DN
TΙ
     quaternary ammonium salts
     Ogawa, Masumi; Tahobashi, Ken
IN
     Ajinomoto Co., Inc., Japan
PΑ
     Jpn. Kokai Tokkyo Koho, 19 pp.
SO
     CODEN: JKXXAF
     Patent
DT
     Japanese
LA
     ICM A61K007-06
IC
     ICS A61K007-00; C11D003-60
     62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1
                                           APPLICATION NO.
                                                          DATE
                      KIND
                            DATE
      PATENT NO.
                                           _____
      -----
                                                           19971030
                                           JP 1997-297985
                            19990518
                       Α2
      JP 11130635
 PΙ
                            19971030
 PRAI JP 1997-297985
      Hair cosmetics contain alkyl quaternary ammonium salts and basic amino
     -MARPAT-131:-23230----
 OS
```

acid derivs. R1(0) jCH2CH(OH)CH2N(X)(CH2)kCH(Y)CO2H [R1 = linear or branched C8-22 alkyl, alkenyl; j=0, 1; X=H, R2(O)nCH2CH(OH)CH2; k=0-5; when k is 0, then Y is (CH2)mZ; when k is 1-5, then Y is amino; R2 = linear or branched C8-22 alkyl, alkenyl; n = 0, 1; m = 1-5; Z = groupselected from NH2, CH(OH)CH2NH2, NHC(:NH)NH2, 2-imidazolin-4-yl] and/or their salts. L-Arg was treated with a glycidyl ether mixt. (Heloxy 8) in EtOH/H2O to give a liq. compn. A hair rinse contg. the compn. and stearyltrimethylammonium chloride at 1.9 and 0.1 wt.%, resp. showed good hair-conditioning effects.

hair conditioner basic amino acid deriv; quaternary ammonium amino acid hair rinse; glycidyl ether amino acid deriv hair

Amino acids, biological studies RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); TT BIOL (Biological study); PREP (Preparation); USES (Uses) (basic, derivs.; hair conditioners contg. basic amino acid derivs. and/or alkyl quaternary ammonium salts)

(conditioners; hair conditioners contg. basic amino acid derivs. and/or Hair preparations IT alkyl quaternary ammonium salts)

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Quaternary ammonium compounds, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (hair conditioners contg. basic amino acid derivs. and/or alkyl (Uses) quaternary ammonium salts) 17301-53-0, Behenyltrimethylammonium chloride RL: BUU (Biological use, unclassified); BIOL (Biological study); USES IT (Arquad 22-80; hair conditioners contg. basic amino acid derivs. and/or (Uses) alkyl quaternary ammonium salts) 112-03-8,

107-64-2, Distearyldimethylammonium chloride 1120-02-1, Stearyltrimethylammonium IT Stearyltrimethylammonium chloride RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair conditioners contg. basic amino acid derivs. and/or alkyl quaternary ammonium salts)

74-79-3DP, L-Arginine, reaction products with glycidyl ethers, biological studies 189233-51-ODP, Heloxy 8, reaction ΙT products with L-arginine 194797-13-2P 205486-69-7P 205486-70-0P 205486-71-1P 205486-72-2P 226697-81-0P RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses) (hair conditioners contg. basic amino acid derivs. and/or alkyl

quaternary ammonium salts)

74-79-3, L-Arginine, reactions 149-87-1, DL-Pyrrolidonecarboxylic acid 2461-18-9, Dodecyl glycidyl ether 10098-89-2, L-Lysine hydrochloride 16245-97-9 38954-75-5, Tetradecyl

glycidyl ether RL: RCT (Reactant); RACT (Reactant or reagent) (hair conditioners contg. basic amino acid derivs. and/or alkyl quaternary ammonium salts)

RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); IT BIOL (Biological study); PREP (Preparation); USES (Uses) (hair conditioners contg. basic amino acid derivs. and/or alkyl quaternary ammonium salts)

L-Lysine, N6-[3-(dodecyloxy)-2-hydroxypropyl]-, monohydrochloride (9CI) RN CN (CA INDEX NAME)

Absolute stereochemistry.

IT

$$\begin{array}{c|c} & \text{NH2} & \text{OH} \\ & \text{HO}_2\text{C} & \text{S} & \text{(CH2)} & \text{4} \\ \end{array}$$

#### HCl

L37 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2003 ACS

1999:253709 HCAPLUS ΑN

Cosmetic makeups containing basic amino acid derivatives DN TI

Ogawa, Masumi; Tahohashi, Ken ΤN

Ajinomoto Co., Inc., Japan

```
METZMAIER 10/061898
                       Page 10
     Jpn. Kokai Tokkyo Koho, 18 pp.
SO
     CODEN: JKXXAF
     Patent
DT
     Japanese
LA
     ICM A61K007-02
TC
     ICS A61K007-00; A61K007-025; A61K007-032
     62-4 (Essential Oils and Cosmetics)
FAN.CNT 1
                                           APPLICATION NO.
                                                            DATE
                     KIND DATE
     PATENT NO.
                                           -----
                     ____
                                                            19980206
                                           JP 1998-25912
                      A2
                            19990420
     JP 11106312
PΙ
                            19970804
PRAI JP 1997-209483
     MARPAT 130:342766
     Cosmetics which show an improved skin adhesion of powders, comprise (1)
os
     basic amino acid derivs. obtained by treating basic amino acids with
AΒ
     glycidyl ethers or 1,2-epoxyalkanes and (2) cosmetic
     powders. A lipstick compn. contained N-(2-hydroxydodecyl)-L-
     arginine hydrochloride (prepn. given) 2, beeswax 5, candelilla wax 6,
     carnauba wax 2, ceresin 7, microcryst. wax 3, castor oil 42, lanolin 8,
     octyldodecyl ricinoleate 2, iso-Pr myristate 5, titania 2, and Red No. 202
     cosmetic basic amino acid deriv prepn; lipstick arginine deriv powder
     5 %.
ST
     Amino acids, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
IT
         (basic; cosmetic makeups contg. basic amino acid derivs. and powders)
      (Uses)
     Kaolin, biological studies
 IT
      Polyamides, biological studies
      RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
         (cosmetic makeups contg. basic amino acid derivs. and powders)
      (Uses)
      Cosmetics
         (foundations, emulsions; cosmetic makeups contg. basic amino acid
 IT
         derivs. and powders)
 IT
      Cosmetics
         (foundations, powders; cosmetic makeups contg. basic amino acid derivs.
      Cosmetics
         and powders)
 IT
      Cosmetics
        _(lipsticks; cosmetic makeups contg. basic amino acid derivs. and
         powders)
      Cosmetics
         (makeups; cosmetic makeups contg. basic amino acid derivs. and powders)
 IT
      Cosmetics
         (mascaras; cosmetic makeups contg. basic amino acid derivs. and
 ΙT
         powders)
                                                        546-93-0, Magnesium
      471-34-1, Calcium carbonate, biological studies
 ΙT
      carbonate 557-04-0, Magnesium stearate 557-05-1, Zinc stearate
      633-96-5, Japan orange no. 205 2353-45-9, Japan green no. 3 3844-45-9,
                        5281-04-9, Japan red no. 202 6252-76-2, Japan red 401
       Japan blue no. 1
                             13463-67-7, Titania, biological studies
       12174-53-7, Sericite
      14807-96-6, Talc, biological studies 16423-68-0, Japan red no. 3
       51274-00-1, Yellow iron oxide
      RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
       (Uses)
          (cosmetic makeups contg. basic amino acid derivs. and powders)
                                     194797-06-3P 194797-08-5P
                     194797-05-2P
       194797-04-1P
  TΤ
                                     220505-72-6P
                      194797-15-4P
       194797-13-2P
       RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
       (Biological study); PREP (Preparation); USES (Uses)
```

METZMAIER 10/061898 Page 11

(prepn. of basic amino acid derivs. for cosmetics) 56-87-1, L-Lysine, reactions 74-79-3, L-Arginine, reactions DL-Pyrrolidonecarboxylic acid 2461-18-9, Dodecyl glycidyl 149-87-1, ΙT ether 2855-19-8, 1,2-Epoxydodecane 7390-81-0, 1,2-Epoxyoctadecane 10098-89-2, L-Lysine hydrochloride 16245-97-9, Octadecylglycidyl ether 194944-73-5, Heroxine 8 RL: RCT (Reactant); RACT (Reactant or reagent) (prepn. of basic amino acid derivs. for cosmetics) 194797-08-5P RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL ΙT (Biological study); PREP (Preparation); USES (Uses) (prepn. of basic amino acid derivs. for cosmetics) 194797-08-5 HCAPLUS L-Lysine, N6-[3-(dodecyloxy)-2-hydroxypropyl]-, hydrochloride (9CI) (CA RN CN INDEX NAME)

Absolute stereochemistry.

#### ●x HCl

L37 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2003 ACS 1999:113474 HCAPLUS AN130:186987 Cosmetic compositions containing basic amino acid derivatives DN ΤI for conditioning effects Ogawa, Masumi; Tabohashi, Tatsuru IN Ajinomoto Co., Inc., Japan PA Eur. Pat. Appl., 19 pp. SO CODEN: EPXXDW Patent DTEnglish LA ICM A61K007-48 IC ICS A61K007-06 62-3 (Essential Oils and Cosmetics) CC FAN.CNT 1 APPLICATION NO. DATE KIND DATE PATENT NO. \_\_\_\_\_ ----EP 1998-306152 19980731 19990210 A2 EP 895778 PΙ A3 20000412 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, EP 895778 IE, SI, LT, LV, FI, RO JP 1997-360289 19971226 19990420 A2 JP 11106329 PRAI JP 1997-209478 19970804 19971226 JP 1997-360289 MARPAT 130:186987 Herein is disclosed a cosmetic compn. contg., as the active OS ingredient, (1) at least one member selected from the group consisting of AB basic amino acid derivs. of formula R10jCH2CH(OH)CH2N(X)(CH2)kCH(Y)COOH [R1 = C8-22 straight or branched alkyl or alkenyl group; j = 0, 1; X = H, R2OnCH2CH(OH)CH2 (n = 0, 1; R2 = C8-22 straight or branched alkyl or alkenyl group); k = 0-5; Y = (CH2)mZ (m = 1-5; Z = amino, CH(OH)CH2NH2,

etc)] and their salts and (2) at least one member selected from the group consisting of natural, mineral and synthetic oily materials for cosmetics. The compn. is suitable for a hair or skin prepn., e.g., a hair conditioner and a skin moisturizer, without causing sticky feeling. hair rinse contg. N-(2-hydroxydodecyl)-L-arginine.cntdot.HCl 5, jojoba oil 10, cetostearyl alc. 3, collagen hydrolyzate 0.5, Me polysiloxane 1, Me polycyclosiloxane 0.5, polyether-modified silicones 0.5 %, L-glutamic acid q.s., and water to 100 % was prepd. and the sensory test was carried out. hair prepn hydroxyalkyl amino acid deriv; skin prepn hydroxyalkyl amino STacid deriv Amino acids, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES TT (basic; cosmetic compns. contg. basic amino acid derivs. for conditioning effects) Hair preparations IT (conditioners; cosmetic compns. contg. basic amino acid derivs. for conditioning effects) Cosmetics ΙT Shampoos (cosmetic compns. contg. basic amino acid derivs. for conditioning effects) Hair preparations IT (creams; cosmetic compns. contg. basic amino acid derivs. for conditioning effects) Cosmetics IT Cosmetics (moisturizers, lotions; cosmetic compns. contg. basic amino acid derivs. for conditioning effects) 74-79-3DP, L-Arginine, reaction products with Heloxy 8, biological studies 194797-04-1P 189233-51-ODP, Heloxy 8, reaction product with L-arginine 194797-15-4P 194797-13-2P 194797-05-2P **194797-08-5P** 220505-72-6P RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of basic amino acid derivs. as conditioning agents for cosmetics) 56-87-1, L-Lysine, reactions 74-79-3, L-Arginine, reactions 2461-18-9, ΙT 2855-19-8, 1,2-Epoxydodecane Dodecylglycidyl ether <u>189233-51-0, Heloxy 8</u> RL: RCT (Reactant); RACT (Reactant or reagent) (prepn. of basic amino acid derivs. as conditioning agents for cosmetics) 194797-08-5P RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL ΙT (Biological study); PREP (Preparation); USES (Uses) (prepn. of basic amino acid derivs. as conditioning agents for cosmetics)

L-Lysine, N6-[3-(dodecyloxy)-2-hydroxypropyl]-, hydrochloride (9CI) (CA

Absolute stereochemistry.

INDEX NAME)

RN CN

194797-08-5 HCAPLUS

$$\begin{array}{c|c} & \text{NH2} & \text{OH} \\ & \text{HO}_2\text{C} & \text{S} & \text{(CH}_2) & \text{4} \end{array} \qquad \begin{array}{c} \text{OH} \\ & \text{N} & \text{O} \\ & \text{(CH}_2) & \text{11} \end{array}$$

#### ●x HCl

```
L37 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2003 ACS
     1998:204417 HCAPLUS
     128:274869
     Hair care compositions comprising higher alcohols and basic
     amino acid derivatives
     Noguchi, Yasunobu; Tabohashi, Tatsuru
IN
     Ajinomoto Co., Ltd., Japan
PΑ
     Eur. Pat. Appl., 33 pp.
SO
     CODEN: EPXXDW
DT
     Patent
     English
LA
     ICM A61K007-06
     ICS A61K007-50
     62-3 (Essential Oils and Cosmetics)
CC
FAN.CNT 3
                                            APPLICATION NO.
                                                              DATE
                       KIND DATE
     PATENT NO.
                                            -----
                             _____
      -----
                                                              19970829
                                            EP 1997-306662
                             19980325
                       A1
      EP 830856
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
PΙ
              IE, FI
                                                              19960830
                                            JP 1996-246885
                             19980317
                        A2
      JP 10072331
                             19960830
 PRAI JP 1996-246885
                             19970804
      JP 1997-208897
      MARPAT 128:274869
      A hair care compn. with good conditioning effects and producing
 OS
      a desired feeling upon use comprises a higher alc. in combination with a
 AΒ
      basic amino acid deriv. formed by the reaction of a glycidyl
      ether or a 1,2-epoxyalkane (both of which are epoxy compds.) with
      a basic amino acid. A cationic polymer or an anionic surfactant and/or an
      amphoteric surfactant may be used in addn. to the above-mentioned
      components. In this way the use of alkyl quaternary ammonium salts, which are cause irritation may be avoided. Thus, N-(2-hydroxy-3-
      dodecyloxypropyl)-L-arginine-HCl (I) was prepd. by the reaction of
      L-arginine and dodecyl glycidyl ether. Thus, a hair
      prepn. contained I 6.0, Anon BF 0.2, cetyl alc. 3.0, propylene glycol 1.0
      hair alc amino acid deriv prepn; arginine dodecyloxypropyl hydroxy hair
       and water to 100%.
 ST
       Sulfonic acids, biological studies
       RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 ΙT
          (1-alkene, sodium salts; hair care compns. contg. higher
          alcs. and basic amino acid derivs.)
       Alcohols, biological studies
       RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
  IT
          (C16-18; hair care compns. contg. higher alcs. and basic
          amino acid derivs.)
```

Page 14

Absolute stereochemistry.

Page 15 METZMAIER 10/061898

### HCl

205486-73-3 HCAPLUS RN L-Lysine, N6-[2-hydroxy-3-(octadecyloxy)propyl]-, monohydrochloride (9CI) CN (CA INDEX NAME)

Absolute stereochemistry.

#### ● HCl

205486-74-4 HCAPLUS RN L-Lysine, N6,N6-bis[2-hydroxy-3-(octadecyloxy)propyl]-, monohydrochloride CN (9CI) (CA INDEX NAME)

Absolute stereochemistry.

# HCl

ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2003 ACS

1997:557058 HCAPLUS ΑN

DN 127:222240

Basic amino acid derivative for use as a surfactant, and ΤI toiletry or detergent composition containing the same

Noguchi, Yasunobu; Sano, Keigo; Tabohashi, Tatsuro; Honma, Masao ΙN

Ajinomoto Co., Inc., Japan PΑ

Eur. Pat. Appl., 20 pp. SO

CODEN: EPXXDW

DT Patent

LA English

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

```
Page 16
METZMAIER 10/061898
     ICM B01F017-00
IC
     46-1 (Surface Active Agents and Detergents)
CC
     Section cross-reference(s): 62
                                          APPLICATION NO. DATE
                      KIND DATE
     PATENT NO.
                                          _____
     _____
                      A1 19970813
                                          EP 1997-300717
                                                             19970205
     EP 788832
ΡI
       R: DE, FR, GB, IT
                                          CN 1997-101234
JP 1997-22707
     CN 1161958 A 19971015
JP 09271655 A2 19971021
                                                              19970205
     JP 09271655 A2 19990706
US 5919748 A 19990928
T058869 A 19990928
                                                              19970205
                                           US 1997-796741
                                                              19970206
                                                              19980519
                                            US 1998-81242
     JP 1996-20126 A 19960206
US 1997-796741 A3 19970206
PRAI JP 1996-20126
     Basic amino-acid derivs. or salts are obtained by reacting
AΒ
     glycidyl ethers with basic amino acids or salts, and are
     useful as surfactants. When used as surfactants, the
     compds. of the invention show low irritability towards the skin or mucous
     membranes, and excellent conditioning effects and therefore can be used in
     a wide range of toiletry and detergent compns. and
     fabric softeners. N-(2-Hydroxy-3-dodecyloxypropyl)-L-arginine
     hydrochloride was prepd. by reaction of L-arginine and dodecyl
     glycidyl ether.
     basic amino acid glycidyl ether adduct;
ST
     surfactant basic amino acid deriv; detergent basic amino
     acid deriv; cosmetic basic amino acid deriv; fabric softener basic amino
      acid deriv
     Amino acids, uses
TΨ
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
      use); PREP (Preparation); USES (Uses)
         (adducts with glycidyl ethers; basic amino acid
         deriv. for use as a surfactant, and toiletry or
         detergent compn. contg. the same)
      Cosmetics
 IT
        Detergents
      Fabric softeners
        Surfactants
         (basic amino acid deriv. for use as a surfactant, and
         toiletry or detergent compn. contg. the same)
      194797-04-1P 194797-05-2P 194797-06-3P 194797-07-4P
IT_
      194797-08-5P 194797-09-6P 194797-10-9P
      194797-11-0P 194797-13-2P 194797-15-4P
      RL: IMF (Industrial manufacture); TEM (Technical or engineered material
      use); PREP (Preparation); USES (Uses)
         (basic amino acid deriv. for use as a surfactant, and
         toiletry or detergent compn. contg. the same)
      74-79-3, L-Arginine, reactions 149-87-1, DL-Pyrrolidonecarboxylic acid 657-27-2, L-Lysine hydrochloride 2461-18-9, Dodecyl glycidyl
 IT
             16245-97-9, Octadecyl glycidyl ether
       194944-73-5, Heroxine 8
       RL: RCT (Reactant); RACT (Reactant or reagent)
          (basic amino acid deriv. for use as a surfactant, and
          toiletry or detergent compn. contg. the same)
       194797-08-5P 194797-09-6P 194797-10-9P
 IT
       194797-11-0P
       RL: IMF (Industrial manufacture); TEM (Technical or engineered material
       use); PREP (Preparation); USES (Uses)
          (basic amino acid deriv. for use as a surfactant, and
          toiletry or detergent compn. contg. the same)
       194797-08-5 HCAPLUS
  RN
```

METZMAIER 10/061898 Page 17

CN L-Lysine, N6-[3-(dodecyloxy)-2-hydroxypropyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} NH2 & OH \\ HO_2C & S & (CH_2) & 4 \end{array} \qquad \begin{array}{c} OH & \\ O & (CH_2) & 11 \end{array}$$

#### ●x HCl

RN 194797-09-6 HCAPLUS CN L-Lysine, N6,N6-bis[3-(dodecyloxy)-2-hydroxypropyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OH OH 
$$(CH_2)_{11}^{Me}$$
 OH  $(CH_2)_{11}^{Me}$  OH  $(CH_2)_{11}^{Me}$ 

#### ●x HCl

RN 194797-10-9 HCAPLUS CN L-Lysine, N6-[2-hydroxy-3-(octadecyloxy)propyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

# ●x HCl

RN 194797-11-0 HCAPLUS CN L-Lysine, N6,N6-bis[2-hydroxy-3-(octadecyloxy)propyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OH OH (CH2) 
$$\overline{17}$$
 Me OH OH (CH2)  $\overline{17}$  OH (CH2)  $\overline{17}$ 

# ●x ~HCl

```
ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2003 ACS
L37
     1997:462831 HCAPLUS
ΑN
     127:163459
DN
     Silicon-modified carbohydrate surfactants. IV. The impact of
     substructures on the wetting behavior of siloxanyl-modified carbohydrate
ΤI
     surfactants on low-energy surfaces
     Wagner, R.; Richter, L.; Weissmueller, J.; Reiners, J.; Klein, K. D.;
ΑU
     Schaefer, D.; Stadtmueller, S.
     Max-Planck-Institute for Colloids and Surfaces, Berlin, 12489, Germany
CS
     Applied Organometallic Chemistry (1997), 11(7), 617-632
SO
     CODEN: AOCHEX; ISSN: 0268-2605
PB
     Wiley
     Journal
DT
     English
LA
     46-3 (Surface Active Agents and Detergents)
     Section cross-reference(s): 33
     The siloxanyl-modified carbohydrate surfactants investigated
     consist of the four structural elements: (1) siloxanyl moiety; (2) spacer;
AB
      (3) carbohydrate unit; and (4) modifying element. By static surface
     tension (.gamma.Iv, .sigma.) and wetting tension measurements the contact
      angles of aq. surfactant solns. above the crit. micelle
      formation concn. (cmc) on nonpolar perfluorinated surfaces (FEP plate)
      were detd. Although the siloxanyl units were found to have a high
      capacity to level out the interfacial properties, both surface tension and
      wetting tension react independently to defined changes in the chem.
      structure of the surfactant mols. The results of spreading expts. on polypropylene show good correlation with the dependences found
      by wetting measurements.
      spreading siloxanyl modified carbohydrate surfactant; nonionic
      carbohydrate surfactant chain structure spreading; fluoropolymer
 ST
      spreading siloxanyl modified carbohydrate surfactant
          (cmc; the impact of substructures on the wetting behavior of
 IT
         siloxanyl-modified carbohydrate surfactants on low-energy
         surfaces)
      Surfactants
 IT
      RL: PRP (Properties)
          (nonionic; the impact of substructures on the wetting behavior of
          siloxanyl-modified carbohydrate surfactants on low-energy
          surfaces)
       Fluoropolymers, uses
 TΤ
       RL: NUU (Other use, unclassified); USES (Uses)
          (substrate; the impact of substructures on the wetting behavior of
```

```
siloxanyl-modified carbohydrate surfactants on low-energy
       surfaces)
    Contact angle
IT
        (the impact of substructures on the wetting behavior of
        siloxanyl-modified carbohydrate surfactants on low-energy
     Fluoropolymers, uses
IT
     RL: NUU (Other use, unclassified); USES (Uses)
        (the impact of substructures on the wetting behavior of
        siloxanyl-modified carbohydrate surfactants on low-energy
        surfaces)
     25067-11-2, FEP
ΙT
     RL: NUU (Other use, unclassified); USES (Uses)
        (substrate; the impact of substructures on the wetting behavior of
        siloxanyl-modified carbohydrate surfactants on low-energy
        surfaces)
                                             164063-62-1
                             164063-59-6
     27306-78-1 164063-58-5
ΙT
                                            182688-54-6
                              182688-53-5
     182688-50-2 182688-51-3
                                                              182693-83-0
                                182688-57-9
                                                182693-82-9
                  182688-56-8
     182688-55-7
                                                              182763-55-9
                                  182693-97-6
                                                182694-31-1
                   182693-85-2
     182693-84-1
                                                193764-81-7
                                                              193764-82-8
                                193764-80-6
                   193764-78-2
     182763-57-1
                  193764-84-0 193764-86-2
                                                193812-59-8
     193764-83-9
     RL: PRP (Properties)
         (the impact of substructures on the wetting behavior of
        siloxanyl-modified carbohydrate surfactants on low-energy
        surfaces)
     164063-58-5 182688-50-2 182688-51-3
IT
     RL: PRP (Properties)
         (the impact of substructures on the wetting behavior of
         siloxanyl-modified carbohydrate surfactants on low-energy
         surfaces)
      164063-58-5 HCAPLUS
RN
      2-Propanol, 1-[(2-aminoethyl)amino]-3-[3-[1,3,3,3-tetramethyl-1-
CN
      [(trimethylsilyl)oxy]disiloxanyl]propoxy]- (9CI) (CA INDEX NAME)
                       ОН
     O-SiMe3
 Me-Si-(CH_2)_3-O-CH_2-CH-CH_2-NH-CH_2-CH_2-NH_2
     O-SiMe3
      182688-50-2 HCAPLUS
 RN
      2-Propanol, 1-[(2-aminopropyl)amino]-3-[3-[1,3,3,3-tetramethyl-1-
 CN
      [(trimethylsilyl)oxy]disiloxanyl]propoxy]- (9CI) (CA INDEX NAME)
                                         O-SiMe3
                      OH
     NH<sub>2</sub>
 {
m Me^-CH^-CH_2^-NH^-CH_2^-CH^-CH_2^-O^-(CH_2)\,3^-Si^-Me}
                                         O-SiMe3
      182688-51-3 HCAPLUS
      2-Propanol, 1-[(3-aminopropyl)amino]-3-[3-[1,3,3,3-tetramethyl-1-
 RN
       [(trimethylsilyl)oxy]disiloxanyl]propoxy]- (9CI) (CA INDEX NAME)
 CN
```

```
OH
    O-SiMe3
Me-Si-(CH_2)_3-O-CH_2-CH-CH_2-NH-(CH_2)_3-NH_2
    O-SiMe3
L37 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2003 ACS
     1996:546025 HCAPLUS
ΑN
     125:171537
     Saccharide-modified silanes and carbosilanes as surfactants
DN
TΙ
     Wagner, Roland; Richter, Lothar; Jaenicke, Andrea
     Max-Planck-Gesellschaft zur Foerderung der Wissenschaften eV, Germany
ΙN
PΑ
     Ger. Offen., 21 pp.
SO
     CODEN: GWXXBX
     Patent
DΤ
     German
T.A
     ICM C07H003-04
     ICS C07H003-02; C07H003-06; C07F007-18; C07F007-10
IC
     46-3 (Surface Active Agents and Detergents)
     Section cross-reference(s): 29, 33
 FAN.CNT 1
                                      APPLICATION NO. DATE
                      KIND DATE
     PATENT NO.
                                          _____
      _______
                            19960704 DE 1994-4437886 19941022
                      A1
     DE 4437886
                           19941022
 PRAI DE 1994-4437886
     Silanes and carbosilanes having carbon rings and (or) chains with .gtoreq.1
     OH group are useful as biodegradable surfactants that are
      insensitive to pH. Thus, reaction of NH2(CH2)2NHCH2CH(OH)CH2O(CH2)3SiMe(C
      H2SiMe3)2 with D-gluconic acid lactone gave a product that exhibited good
      foaming as an aq. soln.
      biodegradable surfactant saccharide silane adduct manuf;
      gluconic acid amino carbosilane adduct manuf; carbosilane saccharide
      adduct biodegradable surfactant manuf
      Silanes
 IT
      RL: IMF (Industrial manufacture); PREP (Preparation)
         (hydroxy derivs.; silanes and carbosilanes having carbon rings and (or)
         chains with .gtoreq.1 hydroxy group as biodegradable
        _surfactants)
      Biodegradable materials
 TΨ
         (silanes and carbosilanes having carbon rings and (or) chains with
        Surfactants
         .gtoreq.l hydroxy group as biodegradable surfactants)
 IT
      Silanes
      RL: IMF (Industrial manufacture); PREP (Preparation)
         (carbo-, hydroxy derivs.; silanes and carbosilanes having carbon rings
         and(or) chains with .gtoreq.1 hydroxy group as biodegradable
         surfactants)
       630-17-1, Neopentyl bromide
  IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
          (Grignard deriv., surfactant precursor; silanes and
         carbosilanes having carbon rings and(or) chains with .gtoreq.1 hydroxy
         group as biodegradable surfactants)
                     180713-88-6P 180713-89-7DP, reaction products with
       180713-87-5P
                                       180713-90-0P 180713-92-2P
       saccharide-modified carbosilane
                                                                 180713-99-9P
                                                  180713-98-8P
       180713-93-3P 180713-94-4P 180713-97-7P
                                                   180714-04-9P
                                    180714-02-7P
                    180714-01-6P
       180714-00-5P
```

RL: IMF (Industrial manufacture); PREP (Preparation)

(silanes and carbosilanes having carbon rings and (or) chains with

.gtoreq.1 hydroxy group as biodegradable surfactants)

180713-86-4P 180713-91-1P 180713-96-6P RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT IT (Reactant or reagent)

(silanes and carbosilanes having carbon rings and (or) chains with .gtoreq.1 hydroxy group as biodegradable surfactants)

56-18-8, Dipropylenetriamine IT

RL: RCT (Reactant); RACT (Reactant or reagent)

(silanes and carbosilanes having carbon rings and (or) chains with

.gtoreq.1 hydroxy group as biodegradable surfactants)

7489-70-5P 180713-95-5P 180714-03-8P RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT TT (Reactant or reagent)

(surfactant precursor; silanes and carbosilanes having carbon rings and (or) chains with .gtoreq.1 hydroxy group as biodegradable

90-80-2, D-Gluconic acid lactone 96-48-0, .gamma.-Butyrolactone surfactants) IT 106-92-3, Allyl glycidyl ether 107-15-3, 1,2-Ethanediamine, reactions 140-31-8, N-(2-Aminoethyl)piperazine

1066-35-9, Chlorodimethylsilane 18044-44-5 20152-11-8, Tetramethyldisilylethylene 21341-13-9 93377-95-8 129276-42-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(surfactant precursor; silanes and carbosilanes having carbon rings and(or) chains with .gtoreq.1 hydroxy group as biodegradable surfactants)

180713-86-4P 180713-91-1P 180713-96-6P IT

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(silanes and carbosilanes having carbon rings and (or) chains with .gtoreq.1 hydroxy group as biodegradable surfactants)

180713-86-4 HCAPLUS

8-Oxa-12-aza-2,4-disilatetradecan-10-ol, 14-amino-2,2,4-trimethyl-4-RN CN [(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)

8-Oxa-12-aza-2,4-disilatetradecan-10-ol, 14-amino-2,2,4,4-tetramethyl-180713-91-1 HCAPLUS RN CN (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} & \text{OH} \\ | \\ | \\ \text{Me}_{3}\text{Si-CH}_{2}\text{-Si-} (\text{CH}_{2})_{3}\text{-O-CH}_{2}\text{-CH-CH}_{2}\text{-NH-CH}_{2}\text{-CH}_{2}\text{-NH}_{2} \\ | \\ | \\ \text{Me} \end{array}$$

180713-96-6 HCAPLUS

RN2-Propanol, 1-[(2-aminoethyl)amino]-3-[3-[(2,2dimethylpropyl)dimethylsilyl]propoxy]- (9CI) (CA INDEX NAME) CN

```
ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2003 ACS
     1996:517957 HCAPLUS
AN
     125:279205
DN
     Silicon-modified carbohydrate surfactants. I. Synthesis of
     siloxanyl moieties containing straight-chained glycosides and amides
ΤI
     Wagner, R.; Richter, L.; Wersig, R.; Schmaucks, G.; Weiland, B.;
ΑU
     Weissmueller, J.; Reiners, J.
     Max-Planck-Inst. Colloids Surfaces, Berlin, 12489, Germany
     Applied Organometallic Chemistry (1996), 10(6), 421-435
CS
SO
     CODEN: AOCHEX; ISSN: 0268-2605
     Wiley
PΒ
     Journal
DΤ
LΑ
     English
     46-3 (Surface Active Agents and Detergents)
     Section cross-reference(s): 44
     New siloxanyl-modified carbohydrate surfactants of the amide and
     glycoside type have been synthesized by coupling between defined as well
AB
     as higher-mol.-wt. siloxanes and carbohydrate structures via spacers of
     different lengths and hydrophilic power. Linear and branched monohydrogen
     di-, tri-, tetra-, and pentasiloxanes and polyhydrogen siloxanes as well
     as mono- and disaccharide lactone structures have been found to be good
     starting materials for the synthesis of amides, often in quant. yield,
     whereas glycosides had to be prepd. in low-yield multistep sequences
     including protection/deprotection steps. Selected strategies were applied
     to polysiloxanes yielding quant. a broad variety of carbohydrate-modified
      comb-like structures. The new substances were characterized by means of
      13C NMR spectroscopy, GC, capillary GC, GC-MS coupling, and elemental
      anal.
      surfactant siloxane glycoside amide
 ST
      Glycosides
 ΙT
     Siloxanes and Silicones, preparation
      RL: SPN (Synthetic preparation); PREP (Preparation) ---
         (prepn. of silicone-modified surfactants contg.
         straight-chain glycosides and amides)
      Surfactants
         (nonionic, prepn. of silicone-modified surfactants contg.
 IT
         straight-chain glycosides and amides)
      7422-52-8P 18044-44-5P 18623-16-0P 18727-39-4P 20580-30-7P 34272-02-1P 34272-03-2P 35785-29-6P 35785-34-3P 164063-58-5P
 ΙT
                                                                  182688-47-7P
      182688-43-3P 182688-44-4P 182688-45-5P
                                                   182688-46-6P
                     182688-49-9P 182688-50-2P 182688-51-3P
      182688-48-8P
      182688-52-4P
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
       (Reactant or reagent)
          (intermediate; prepn. of silicone-modified surfactants contg.
          straight-chain glycosides and amides)
       106-92-3DP, Allyl glycidyl ether, reaction products
                                 107-15-3DP, 1,2-Ethanediamine, reaction products
  IT
       with hydrogen siloxanes
       with hydrogen siloxanes
       RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
       (Reactant or reagent)
```

[(trimethylsilyl)oxy]disiloxanyl]propoxy]- (9CI) (CA INDEX NAME)

Page 23

182688-51-3 HCAPLUS RN 2-Propanol, 1-[(3-aminopropyl)amino]-3-[3-[1,3,3,3-tetramethyl-1-CN [(trimethylsilyl)oxy]disiloxanyl]propoxy]- (9CI) (CA INDEX NAME)

O-SiMe3 OH 
$$|$$
 CH2  $|$  CH2  $|$  CH2 OH-CH2 NH- (CH2)  $|$  O-SiMe3

182688-52-4 HCAPLUS RN 2-Propanol, 1-[(2-amino-1-methylethyl)amino]-3-[3-[1,3,3,3-tetramethyl-1-methylethyl)amino]CN [(trimethylsilyl)oxy]disiloxanyl]propoxy]- (9CI) (CA INDEX NAME)

L37 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2003 ACS

1995:632096 HCAPLUS AN

123:35822 DN

Siloxanyl group-containing polyhydroxy compounds for use as TΙ

surfactants

Wagner, Roland; Wersig, Reingard; Schmaucks, Gerd; Weiland, Bernd; IN Richter, Lothar; Hennig, Annette; Jaenicke, Andrea; Reiners, Juergen; Kraemer, -Wolfgang; -et-al.--

PA . Bayer A.-G., Germany

Ger. Offen., 50 pp. SO

CODEN: GWXXBX

DTPatent

German LA

ICM C07H015-04 IC

ICS C07H015-26; C11D003-22; A01N055-00; C07F007-18; C07F007-10

46-3 (Surface Active Agents and Detergents) CC

```
Page 25
METZMAIER 10/061898
                            19930604
PRAI DE 1993-4318536
     The title compds. are prepd. for use as emulsifiers for insecticides,
                            19940524
     WO 1994-EP1656
     herbicides, etc. Reacting 2-propynyl glucoside with HSiMe(OSiMe3)2 in the
AB
     presence of a Pt catalyst gave 3-(1,1,1,3,5,5,5-heptamethyltrisiloxan-3-
     yl)prop-2-en-1-yl .beta.-D-glucoside for use as a surfactant.
     siloxane polyhydroxy deriv prepn surfactant; saccharide deriv
     siloxane prepn surfactant; glucoside siloxane deriv prepn
ST
     surfactant; trisiloxane deriv saccharide prepn surfactant
      ; emulsifier polyhydroxy deriv siloxane
     RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PRP
      (Properties); PREP (Preparation); USES (Uses)
         (polyhydroxy and siloxanyl group-contg.; prepn. of surface-
         active)
      Siloxanes and Silicones, uses
      RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PRP
 TΨ
      (Properties); PREP (Preparation); USES (Uses)
          (polyhydroxy derivs.; prepn. of surface-active)
          (prepn. of siloxanyl group-contg. polyhydroxy compds. as)
      Surfactants
 IT
      RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PRP
 IT
       (Properties); PREP (Preparation); USES (Uses)
          (epoxy, reaction products with ethylenediamine and gluconolactone;
          prepn. of surface-active)
       RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PRP
  IT
       (Properties); PREP (Preparation); USES (Uses)
          (siloxane-, reaction products with ethylenediamine and gluconolactone;
          prepn. of surface-active)
       1873-88-7, 1,1,1,3,5,5,5-Heptamethyltrisiloxane
       RL: RCT (Reactant); RACT (Reactant or reagent)
  TT
          (addn. reaction with propynyl glucoside)
                  7422-52-8
       RL: RCT (Reactant); RACT (Reactant or reagent)
  IT
           (alkylation of glucamine by)
       RL: RCT (Reactant); RACT (Reactant or reagent)
  ΤТ
           (alkylation of siloxanyl group-contg. polyhydroxy amide-amine by)
                              6284-40-8, N-Methylglucamine
        488-43-7, Glucamine
        RL: RCT (Reactant); RACT (Reactant or reagent)
   TΨ
           (alkylation with bis(glycidyloxypropyl)tetramethyldisiloxane)
        140-31-8, 1-(2-Aminoethyl)piperazine
        RL: RCT (Reactant); RACT (Reactant or reagent)
   IT
           (amidation of gluconolactone by)
        RL: RCT (Reactant); RACT (Reactant or reagent)
   IT
            (amidation of polyhydroxy lactone by)
        50-81-7, L-Ascorbic acid, reactions
        RL: RCT (Reactant); RACT (Reactant or reagent)
    TΤ
            (amidation with amino siloxane)
         RL: RCT (Reactant); RACT (Reactant or reagent)
    IT
            (amidation with dipropylenetriamine)
                                        111-40-0, Diethylenetriamine
         56-18-8, Dipropylenetriamine
         RL: RCT (Reactant); RACT (Reactant or reagent)
    IT
            (amidation with gluconolactone)
         112-24-3, Triethylenetetramine
         RL: RCT (Reactant); RACT (Reactant or reagent)
    ΤT
```

```
Page 26
METZMAIER 10/061898
        (amidation with polyhydroxy lactone)
     107-19-7, 2-Propyn-1-ol
     RL: RCT (Reactant); RACT (Reactant or reagent)
ΙT
        (glucosidation of glucose by)
     RL: RCT (Reactant); RACT (Reactant or reagent)
IT
         (glucosidation with propynol)
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
ΙT
      (Reactant or reagent)
         (prepn. and addn. reaction with heptamethyltrisiloxane)
      RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 ΙT
         (prepn. and alkylation by (glycidyloxypropyl)heptamethyltrisiloxane)
      (Reactant or reagent)
      RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 ΙT
      (Reactant or reagent)
          (prepn. and amidation with gluconolactone)
      RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 IT
       (Reactant or reagent)
          (prepn. and deacetylation of)
       RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
  IT
       (Reactant or reagent)
          (prepn. and hydrogenation of double bonds of)
       RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
  IT
       (Reactant or reagent)
          (prepn. and reaction with allyl glycidyl ether)
       90-80-2DP, Gluconolactone, reaction products with ethylenediamine and
                         107-15-3DP, 1,2-Ethanediamine, reaction products with
  TT
       epoxy siloxanes and gluconolactone 492-62-6DP, .alpha.-D-Glucose,
                                                                     42292-18-2DP,
       reaction products with (aminopropyl)heptamethyltrisiloxane
                                                        164063-38-1P
       reaction products with glucose
                                                                    164063-43-8P
                                                     164063-42-7P
                                      164063-41-6P
                       164063-40-5P
                                                                    164063-48-3P
                                                     164063-47-2P
        164063-39-2P
                                      164063-46-1P
                       164063-45-0P
                                                                     164063-53-0P
                                                     164063-52-9P
        164063-44-9P
                                      164063-51-8P
                       164063-50-7P
                                                                     164063-60-9P
                                                     164063-59-6P
        164063-49-4P
        164063-54-1P - 164063-55-2P 164063-57-4P
                                     164063-64-3P 164063-66-5P-
        RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PRP
        (Properties); PREP (Preparation); USES (Uses)
           (prepn. of surface-active)
        RL: RCT (Reactant); RACT (Reactant or reagent)
   TT
            (reaction with (aminopropyl)heptamethyltrisiloxane)
         RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
        164063-58-5P
   IT
         (Reactant or reagent)
            (prepn. and amidation with gluconolactone)
         2-Propanol, 1-[(2-aminoethyl)amino]-3-[3-[1,3,3,3-tetramethyl-1-
         164063-58-5 HCAPLUS
    RN
         [(trimethylsilyl)oxy]disiloxanyl]propoxy]- (9CI) (CA INDEX NAME)
    CN
```

O—SiMe3

OH

```
Me-Si-(CH_2)_3-O-CH_2-CH-CH_2-NH-CH_2-CH_2-NH_2
    o-SiMe3
L37 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2003 ACS
    1991:537510 HCAPLUS
    115:137510
     Room temperature-curable epoxy resins containing aliphatic polyamines
DN
TI
     Wolf, Elmar
IN
     Huels A.-G., Germany
PA
     Ger. Offen., 5 pp.
SO
     CODEN: GWXXBX
     Patent
DT
     German
LA
     ICM C08L063-00
     ICS C08K005-17; C08K005-43; C08G059-56
ICA C08G059-60; C08J005-00; C09D163-00; C09J163-00; C09K003-10; E04B001-66;
     E04D007-00
ICI C08J003-24, C08L063-00, C08K005-17, C08K005-43
     37-6 (Plastics Manufacture and Processing)
FAN.CNT 1
                                          APPLICATION NO. DATE
                  KIND DATE
     PATENT NO.
                                          _____
                     ____
     -----
                                         DE 1989-3934427 19891014
     DE 3934427 A1
                            19910418
PΙ
 PRAI DE 1989-3934427 19891014
     Compns. giving adherent, gasoline-resistant cured products with
     good tensile and impact strength contain epoxy resins, (cyclo)aliph.
     polyamines bearing .gtoreq.3 active H atoms/mol. and -NCH2CH(OH)CH2OR
     groups [R = (oxa)alkyl group] and 20-300% (based on polyamine) PhSO2NHBu.
     A mixt. of bisphenol A epoxy resin (epoxy no. 0.53) 1140, 1:1 reaction
     product of 2,2 (or 4), 4-trimethyl-1,6-hexanediamine with glycidyl
      lauryl ether 8001, and PhSO2NHBu 400 parts contg. 2%
      (Me2NCH2)3C6H2OH gave a 4-mm plate with Shore D hardness 49 after 7 days
      at 25.degree., tensile strength 15.2 N/mm2, elongation 90%, and cut growth
      resistance 62.5 N/mm.
      crosslinking agent epoxy resin; catalyst crosslinking epoxy resin;
 ST
      butylbenzenesulfonamide catalyst crosslinking; glycidyl
      ether adduct crosslinker; trimethylhexanediamine adduct
      crosslinker; polyamine crosslinker epoxy resin
      Crosslinking catalysts
 ΙT
         (butylbenzenesulfonamide, for epoxy resins by polyamines at room temp.)
      Crosslinking agents
 IΤ
         (polyamine-glycidyl ether reaction products, for
         epoxy resins at room temp.)
      Epoxy resins, uses and miscellaneous
 TT
      RL: USES (Uses)
         (aliph., room temp.-curable, polyimines as crosslinking agents for)
      Epoxy resins, uses and miscellaneous
  ΙT
      RL: USES (Uses)
         (bisphenol A-based, room temp.-curable, polyimines as crosslinking
         agents for)
      Amines, uses and miscellaneous
  ΙT
      RL: MOA (Modifier or additive use); USES (Uses)
          (poly-, crosslinking agents, for epoxy resins at room temp.)
       136029-76-0 136029-78-2 136056-34-3
  ΙT
```

METZMAIER 10/061898 Page 28

136056-36-5

RL: USES (Uses)

(room temp.-curable, with good tensile strength and cut growth resistance)

136029-76-0 136029-78-2 136056-34-3 ΙT

136056-36-5

RL: USES (Uses)

(room temp.-curable, with good tensile strength and cut growth resistance)

13,27-Dioxa-17,23-diazanonatriacontane-15,25-diol, 19-methyl-, polymer 136029-76-0 HCAPLUS RNwith (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol] (9CI) CN (CA INDEX NAME)

CM1

CRN 136029-75-9 CMF C36 H76 N2 O4

PAGE 1-A OH Me- (CH<sub>2</sub>)<sub>11</sub>-0- CH<sub>2</sub>-CH- CH<sub>2</sub>- CH- CH<sub>2</sub>-CH- (CH<sub>2</sub>)<sub>3</sub>- NH- CH<sub>2</sub>-CH- CH<sub>2</sub>-

PAGE 1-B

-- O- (CH<sub>2</sub>)<sub>11</sub>-Me

CM 2

CRN 106-89-8 CMF\_\_C3\_H5\_C1\_O\_\_

CH2-Cl

3 CM

CRN 80-05-7 CMF C15 H16 O2

Мe

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

RN 136029-78-2 HCAPLUS CN 5,19-Dioxa-9,15-diazatricosane-7,17-diol, ll-methyl-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 136029-77-1 CMF C20 H44 N2 O4

CM 2

CRN 106-89-8 CMF C3 H5 C1 O

CM 3

CRN 80-05-7 CMF C15 H16 O2

RN 136056-34-3 HCAPLUS CN 13,28-Dioxa-17,24-diazatetracontane-15,26-diol, 19,19,21(or 19,21,21)-trimethyl-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 136056-33-2 CMF C39 H82 N2 O4 CCI IDS METZMAIER 10/061898

PAGE 1-A

D1-Me

Page 30

PAGE 1-B

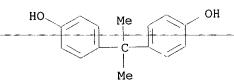
$$\begin{array}{c} & \text{OH} \\ | \\ -\text{CH}_2-\text{CH}-\text{CH}_2-\text{O}-\text{(CH}_2)_{11}-\text{Me} \end{array}$$

CM 2

CRN 106-89-8 CMF C3 H5 Cl O

CM 3

CRN 80-05-7 CMF C15 H16 O2



RN 136056-36-5 HCAPLUS

CN 5,20-Dioxa-9,16-diazatetracosane-7,18-diol, 11,11,13(or
11,13,13)-trimethyl-, polymer with (chloromethyl)oxirane and
4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 136056-35-4 CMF C23 H50 N2 O4 CCI IDS

PAGE 1-A ОН Мe Me CH2-CH2-CH-CH2-CH-CH2

D1--- Me

PAGE 1-B

- CH2-OBu-n

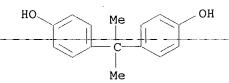
CM 2

CRN 106-89-8 CMF C3 H5 C1 O

CH2-Cl

CM 3

CRN 80-05-7 CMF C15 H16 O2



L37 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2003 ACS

AN 1991:451068 HCAPLUS

DN 115:51068

Fluorinated surfactant monomers for polymer surface modification ΤI

Harnish, Daniel F.; Pickens, Donald; Zweig, Andrew M. IN

Allied-Signal, Inc., USA PA

U.S., 7 pp. CODEN: USXXAM SO

 $\mathsf{D}\mathbf{T}$ Patent

English LA

ICM C08F012-20 IC

NCL 526242000

37-3 (Plastics Manufacture and Processing) CC Section cross-reference(s): 42

Page 32 METZMAIER 10/061898

FAN.CNT 1 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5004790 PRAI US 1989-311316	Α .	19910402 19890215	US 1989-311316	19890215

GΙ

A resin obtained by curing of a compn. contg. a fluorinated AB monomer derived from I (R = H; R1 = H, CnF2n+1; n = 1-8) and .gtoreq.1 co-reactive non-fluoro monomer has modified surface properties such as antifouling, water- and oil-repelling properties. Thus, thermal curing of bisphenol A diglycidyl ether with 100% I [R = CH2:CHCH2(OH)NHCH2CH2NH2; R1 = C8F17] in the presence of molar equiv. ethylenediamine at 50.degree. for 16 h gave an epoxy resin having surface energy 18 erg/cm2, water- and oil-contact angle 80.degree. and 50.degree.,

fluoro epoxy resin prepn; bisphenol diglycidyl ether ST fluoro polymer; water repellent fluoro epoxy resin; oil repellent fluoro epoxy resin

Coating materials IT

(fluorinated acrylate polymers, with low surface energy)

Urethane polymers, preparation ΙT

Ι

RL: USES (Uses)

(fluorine-contg., with low surface energy)

IT Fluoropolymers

RL: USES (Uses)

(polyurethane-, with low surface energy)

129181-48-2 IT

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, with low surface energy)

134874-92-3P **134874-94-5P** 134874-95-6P 134874-91-2P IT 134948-45-1P 134921-45-2P 134921-46-3P 134921-43-0P 134921-44-1P 134981-52-5P

RL: PREP (Preparation)

(prepn. of, with low surface energy)

134874-94-5P IT

RL: PREP (Preparation)

(prepn. of, with low surface energy)

134874-94-5 HCAPLUS RN

2-Propanol, 1,1'-[[5-(heptadecafluorooctyl)-1,3-phenylene]bis[[2,2,2-CN trifluoro-1-(trifluoromethyl)ethylidene]oxy]]bis[3-[(2-aminoethyl)amino]-, polymer with 1,2-ethanediamine and 2,2'-[(1-methylethylidene)bis(4,1phenyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 134874-93-4 CMF C30 H29 F29 N4 O4

Page 33 METZMAIER 10/061898

2 CM

1675-54-3 CRN CMF C21 H24 O4

CM 3

CRN 107-15-3 CMF C2 H8 N2

JP 06094546

 $H_2N-CH_2-CH_2-NH_2$ 

```
L37 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2003 ACS
    1988:530818 HCAPLUS
AN
     109:130818
DN
    Alcohol-soluble dye compositions
ΤI
    Ono, Takashi; Ikegami, Akiko
ΙN
    Orient Chemical Industries, Ltd., Japan
PΑ
     Jpn. Kokai Tokkyo Koho, 7 pp.
SO
     CODEN: JKXXAF
DT
     Patent
     Japanese
LA
     ICM C09B069-00
IC
     41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
CC
     Sensitizers)
     Section cross-reference(s): 42
FAN.CNT 1
                                           APPLICATION NO.
                                                            DATE
                      KIND DATE
     PATENT NO.
                                           -----
                                           JP 1986-221165
                                                            19860918
                            19880405
                       A2
PΙ
     JP 63075068
                            19941124
```

В4

METZMAIER 10/061898 Page 34

PRAI JP 1986-221165 MARPAT 109:130818 19860918

GI

$$\begin{array}{c|c} \text{Me} & \text{Me} \\ \text{Me} & \text{Me} \\ \text{Nested of } N = N \\ \text{OH} & \text{Nested of } N = N \\ \text{OH} & \text{Nested of } N = N \\ \text{Nested$$

Dye compns., sol. in lower alcs. such as PrOH, BuOH, and AΒ propylene glycol monoalkyl ethers and useful for marking inks, comprise reaction mixts. obtained by treating dyes or their precursors contg. active H connected to N or O and no other type of active H with epoxy compds. and converting the precursors to dyes. The reaction mixts. may contain compds. Dm[CH2CH(OH)R]n [D = dye residue; R = C1-4 alkyl, CH2OR1; R1 = H, C1-5 alkyl, C1-5 alkenyl, (meth)acryloyl, CH2CH2CH2Si(OMe)3, polyol residue with mol. wt. .ltoreq.300; m = 1-2; n = 1-4]. Thus, 0.2 mol 1-phenyl-3-carboxy-5-pyrazolone was treated with 0.6 mol glycidol and triethanolamine (catalyst) in H2O at 80-85.degree. and the product was coupled with 0.1 mol diazotized o-tolidine at 10-15.degree. to give dye I. A 20% PrOH soln. of I was stable when kept at -5 or +60.degree. for 3 mo.

alc soluble dye marking ink; epoxy dye adduct alc soluble ST

IT Dyes

(alc.-sol., for marking inks)

Addition reaction ΙT

(of epoxy compds. with active hydrogen-contg. compds., in manuf. of dyes or dye intermediates)

T-T'-

(marking, alc.-sol. dyes for, manuf. of)

ΙT 116429-95-9

RL: PROC (Process)

(addn. of, to Bu glycidyl ether)

134-32-7, .alpha.-Naphthylamine

RL: PROC (Process)

(addn. of, to Me glycidyl ether, dye intermediate

556-52-5, Glycidol 930-37-0, Glycidyl methyl ether ΙT

2224-15-9, Ethylene glycol diglycidyl ether

RL: PROC (Process)

(addn. of, to active hydrogen-contg. compds., dyes or dye intermediates from)

106-92-3, Allyl glycidyl ether 2426-08-6, Butyl ΤT

glycidyl ether 2530-83-8, .gamma.-

Glycidoxypropyltrimethoxysilane 32555-29-6

RL: PROC (Process)

(addn. of, to active-hydrogen contg. compds, dyes or dye intermediates from)

```
Page 35
METZMAIER 10/061898
     106-91-2, Glycidyl methacrylate RL: PROC (Process)
IT
        (addn. of, to active-hydrogen contg. compds., dyes or dye intermediates
        from)
IT
     116429-96-0
     RL: PROC (Process)
        (addn. of, to allyl glycidyl ether)
     15086-94-9
IT
     RL: PROC (Process)
        (addn. of, to ethylene glycol diglycidyl ether)
     92-70-6, 2-Hydroxy-3-naphthoic acid
ΙT
     RL: PROC (Process)
        (addn. of, to ethylene glycol diglycidyl ether, dye
        intermediate from)
     28041-33-0
IT
     RL: PROC (Process)
        (addn. of, to glycerin glycidyl ether)
     6359-29-1 10462-80-3
TΨ
     RL: PROC (Process)
        (addn. of, to glycidol)
     119-18-6
IT
     RL: PROC (Process)
         (addn. of, to glycidol, dye intermediate from)
IT
     116429-94-8
     RL: PROC (Process)
        (addn. of, to glycidoxypropyltrimethoxysilane)
     128-95-0
                 59119-58-3
ΙT
     RL: PROC (Process)
         (addn. of, to glycidyl Me ether)
     131-22-6
TΤ
     RL: PROC (Process)
         (addn. of, to glycidyl methacrylate)
     123-30-8, p-Aminophenol
IT
     RL: USES (Uses)
         (coupling of diazotized, with addn. product of ethylene glycol
         diglycidyl ether and hydroxynaphthoic acid)
      119-93-7, o-Tolidine
ΤT
      RL: USES (Uses)
         (coupling of diazotized, with addn. product of glycidol and
         phenylcarboxypyrazolone)
IT--106-47-8, p-Chloroaniline, reactions
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (coupling of diazotized, with addn. product of glycidyl Me
         ether and naphthylamine)
                                                                    116429-98-2P
                                     116429-93-7P
                                                    116429-97-1P
      116390-02-4P
                     116429-92-6P
 TT
                                                    116430-02-5P
                     116430-00-3P
                                     116430-01-4P
      116429-99-3P
                                116430-05-8P
                                                  116447-15-5P
      116430-03-6P 116430-04-7P
      RL: IMF (Industrial manufacture); PREP (Preparation)
         (prepn. of, alc.-sol., for marking inks)
      67-63-0, 2-Propanol, uses and miscellaneous
                                                     71-23-8, n-Propyl alcohol,
 IT
                              1320-67-8, Propylene glycol monomethyl ether
      uses and miscellaneous
      RL: USES (Uses)
         (solvent, for dyes, for marking inks)
      116430-03-6P 116430-04-7P
 IT
      RL: IMF (Industrial manufacture); PREP (Preparation)
         (prepn. of, alc.-sol., for marking inks)
      116430-03-6 HCAPLUS
 RN
      9,10-Anthracenedione, 1,4-bis[(2-hydroxy-3-methoxypropyl)amino]- (9CI)
 CN
      (CA INDEX NAME)
```

RN 116430-04-7 HCAPLUS

CN 2-Propanol, 1,1'-[[4-[[4-(phenylazo)-1-naphthalenyl]azo]-1,8naphthalenediyl]diimino]bis[3-butoxy- (9CI) (CA INDEX NAME)

L37 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ΑN 1987:121556 HCAPLUS

DN 106:121556

TI Ink compositions

IN Akiyama, Kazutoshi; Ono, Takashi; Yagyu, Tatsuya

PΑ Orient Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DTPatent

LA Japanese

IC ICM C09D011-00

ICS C09D011-02; C09D011-16

CC 42-12 (Coatings, Inks, and Related Products)

FΑ	N.CNT 2				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 61203182	A2	19860909	JP 1985-43214	19850304
	JP 05070675	B4	19931005		
	US 4666519	A	19870519	US 1985-749086	19850626
	EP 168694	A1	19860122	EP 1985-108036	19850628
	EP 168694	B1	19890419		
	R: CH, DE,	GB, LI			

2668-05-5D, C.I. Acid Black 17, reaction products with epoxides and amines 2706-28-7D, C.I. Acid Yellow 9, reaction products with epoxides and amines 5413-75-2D, C.I. Acid Red 73, reaction products with epoxides and amines 6104-58-1D, C.I. Acid Blue 90, reaction products with epoxides and amines 6449-77-0D, C.I. Direct Black 90, reaction products with epoxides and 6470-20-8D, C.I. Acid Orange 56, reaction products with epoxides 8005-03-6D, C.I. Acid Black 2, reaction products with amines 8005-52-5D, C.I. Direct Yellow 44, reaction products and amines epoxides and amines 17372-87-1D, C.I. Acid Red 87, reaction with epoxides and amines products with epoxides and amines 18472-87-2D, C.I. Acid Red 92, reaction products with epoxides and amines 107347-89-7 107375-95-1 107375-93-9 RL: USES (Uses)

(dyes, for water-thinned inks)

Page 38 METZMAIER 10/061898

37372-50-2, C.I. Direct Black 154 IT

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with Bu glycidyl ether and

tolylbiguanide)

556-52-5, Glycidol IT

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with dyes and amines)

6408-71-5, C.I. Acid Violet 41 IT

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with glycidol and tolylbiguanide)

107375-93-9 IT

RL: USES (Uses)

(dyes, for water-thinned inks)

107375-93-9 HCAPLUS RN

2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4'-[[2-amino-4-[(3-butoxy-2hydroxypropyl)amino]phenyl]azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-5-CN hydroxy-6-(phenylazo)-, compd. with N-(2-methylphenyl)imidodicarbonimidic diamide (1:2) (9CI) (CA INDEX NAME)

1 CM

CRN 107375-92-8

CMF C43 H45 N9 O9 S2

PAGE\_1-B

2 CM

CRN 93-69-6 CMF C9 H13 N5

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ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2003 ACS
T.37
     1986:611509 HCAPLUS
ΑN
DN
     105:211509
     Acidizing method using microemulsion
TI
     Andreasson, Eva Margareta; Egeli, Finn; Holmberg, Krister Axel; Nystrom,
IN
     Borje; Stridh, Kjell Gunnar; Osterberg, Eva Marianne
Berol Kemi AB, Norway; Tendex Kjemiservice A/S
PΑ
SO
     Brit. UK Pat. Appl., 6 pp.
     CODEN: BAXXDU
DT
     Patent
LA
     English
     ICM E21B043-27
IC
     51-2 (Fossil Fuels, Derivatives, and Related Products)
CC
FAN.CNT 1
                       KIND DATE
                                            APPLICATION NO.
                                                              DATE
     PATENT NO.
                                                              19851028
                             19860529
                                            GB 1985-26550
ΡI
     GB 2167470
                        Α1
                       B2
                             19880210
     GB 2167470
                                            NO 1984-4451
                                                              19841107
     NO 8404451
                        Α
                             19860509
     NO 173146
                        В
                             19930726
     NO 173146
                        С
                             19931110
                                                              19851106
                                            US 1985-795404
     US 4650000
                        Α
                             19870317
                                            CA 1985-494723
                                                              19851106
                             19881227
     CA 1247353
                        A1
                             19841107
PRAI NO 1984-4451
     Petroleum or gas wells are acidized by injection with a microemulsion of a
AΒ
     hydrocarbon oil, aq. acid, and a surfactant having .gtoreq.2
     hydrophobic nitrogen substituents with partial formula
     R(O)n(A)mCH2CH(OH)CH2 (R = C6-18 alkyl, A = C2-4 alkylene oxide, n = 0 or
     1, m = 0-5). The surfactants are prepd. by reaction of an alkyl
     glycidyl-ether with a nucleophile, typically an amine or an alkanolamine,
     optionally with a following quaternization [e.g., with (MeO)2SO2].
     upon testing in a 200 mm-long column packed with 90% sand and 10%
     dolomite, a microemulsion of [Me(CH2)3CH(Et)CH2OCH2CH(OH)CH2]2N(CH2)2OH
     (I) 20, nonane 55, aq. 2M HCl 15, and 1-hexanol 10 wt.%, resulted in
     better penetration, compared with the microemulsion contg. no I.
     petroleum well acidization surfactant microemulsion; amine
ST
     glycidyl ether surfactant microemulsion
     Petroleum wells
IT
         (acidization of, by microemulsions, surfactants for)
                    105317-95-1 105317-96-2
                                             105317-98-4
IT
     105317-93-9
                    105318-01-2
                                  105318-02-3
     105317-99-5
     RL: USES (Uses)
         (surfactant, microemulsions contg., for acidization of
        petroleum wells)
IT
     105317-96-2
     RL: USES (Uses)
         (surfactant, microemulsions contg., for acidization of
        petroleum wells)
RN
     105317-96-2 HCAPLUS
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METZMAIER 10/061898
                        Page 40
     2-Propanol, 1,1'-[(2-aminoethyl)imino]bis[3-[(2-ethylhexyl)oxy]-(9CI)
     (CA INDEX NAME)
                        CH2-CH2-NH2
               OH
                                              Et
   CH2-O-CH2-CH-CH2-N-CH2-CH-CH2-O-CH2-CH-Bu-n
Et-CH-Bu-n
                               OH
    ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2003 ACS
     1986:610477 HCAPLUS
ΑN
DN
     105:210477
TΙ
     Fluoroepoxy resin for moisture vapor barrier coating and other
     applications
ΑU
     Lee, Sheng Yen; Griffith, James R.
CS
     Goddard Space Flight Cent., NASA, Greenbelt, MD, 20771, USA
SO
     Industrial & Engineering Chemistry Product Research and Development
     (1986), 25(4), 572-7
     CODEN: IEPRA6; ISSN: 0196-4321
DT
     Journal
     English
LA
CC
     42-9 (Coatings, Inks, and Related Products)
     Section cross-reference(s): 38
AB
     A new fluoroepoxy resin was developed that can be processed as a
     conventional thermoset resin yet possesses some of the unique properties
     of the well-known thermoplastic fluoropolymers. Its moisture vapor
     transmission rate and moisture absorption were unusually low. In general,
     the transmission rates were inversely proportional to the fluorine content
     of the materials tested. The fluoroepoxy was an excellent moisture vapor
     barrier coating or sealant and an effective adhesive to bond Teflon
     without etching. It could be foamed by a new and a simple
     foaming process.
ST
     fluoroepoxy resin barrier coating; adhesive fluoroepoxy resin
IT
    Adhesives
        (fluoroepoxy resins, for Teflon)
IT
     Coating materials
        (fluoroepoxy resins, moisture vapor barrier)
ΙT
    Crosslinking agents
        (fluoroepoxy-ethylenediamine adducts, for fluoroepoxy resins)
IT
     Fluoropolymers
     RL: USES (Uses)
        (epoxy, adhesives, for Teflon)
     Epoxy resins, uses and miscellaneous
ΙT
     RL: USES (Uses)
        (fluorine-contg., adhesives, for Teflon)
IT
     Carbon fibers
     RL: USES (Uses)
        (graphite, epoxy resin composites, moisture vapor barrier coatings for,
        fluoroepoxy resins as)
ΙT
     104291-07-8
     RL: MOA (Modifier or additive use); USES (Uses)
        (crosslinking agents, for fluoroepoxy resins)
ΙT
     104215-81-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, for vapor barrier coatings and adhesives)
ΤТ
     104291-07-8
     RL: MOA (Modifier or additive use); USES (Uses)
```

(crosslinking agents, for fluoroepoxy resins)

RN 104291-07-8 HCAPLUS

í

CN 2-Propanol, 1,1'-[[5-(tridecafluorohexyl)-1,3-phenylene]bis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxy]]bis[3-[(2-aminoethyl)amino]-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CF3} \\ \text{C-CF3} & \text{OH} \\ \text{O-CH}_2\text{-CH-CH}_2\text{-NH-CH}_2\text{-CH}_2\text{-NH}_2 \\ \\ \text{F}_3\text{C-C-CF}_3 \\ \text{O-CH}_2\text{-CH-CH}_2\text{-NH-CH}_2\text{-CH}_2\text{-NH}_2 \\ \\ \text{OH} \end{array}$$

L37 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2003 ACS

AN 1983:622411 HCAPLUS

DN 99:222411

TI Photosensitive resin compositions

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C08F299-00; C08F002-48; C08F289-00

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 57212217 A2 19821227 JP 1981-96505 19810624 .

PRAI JP 1981-96505 19810624

Photosensitive resin compns. contain (1) 100 parts of partially
sapond. poly(vinyl-acetate)—whose sapon. degree—(s.p.)—is 60-99 mol% and
(2) 10-300 parts of a polyfunctional monomer (mol. wt. ltoreq.2000)
having .gtoreq.2 functional groups of the formula CH2CH(OH)CH2O2CR:CH2 (R
= H, Me) with total no. of OH groups less than the total no. of unsatd.
bonds. The compns. are water-developable and exhibit good image
reproducibility. Thus, poly(vinyl acetate) (s.p. = 80 mol%; p.d. = 500)
100, EtoH 60, and H2O 80 parts were mixed and ethylene glycol
diglycidyl ether diacrylate 80, benzoin Et ether 3, and
hydroquinone 0.05 part were added to the soln. to give a photosensitive
resin compn. from which a high-quality printing plate was prepd.

photosensitive resin sapond polyvinyl acetate; printing plate photosensitive resin

IT Printing plates

(photosensitive resin compns. for)

IT 9003-20-7

RL: USES (Uses)

(partially sapond., photosensitive resin compns. contg.)

119-61-9, uses and miscellaneous 123-31-9, uses and miscellaneous 150-76-5 574-09-4 868-77-9 7177-68-6 24650-42-8 27213-78-1 72388-07-9 87897-15-2 87897-16-3

### METZMAIER 10/061898 Page 42

RL: USES (Uses)

(photosensitive resin compns. contg.)

IT 110-15-6, reactions 1477-55-0

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with glycidyl methacrylate)

IT 106-91-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with succinic acid and xylylenediamine)

IT 87897-16-3

RL: USES (Uses)

(photosensitive resin compns. contg.)

RN 87897-16-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,3-phenylenebis[nitrilobis(2-hydroxy-3,1propanediyl)] ester (9CI) (CA INDEX NAME)